



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,437	01/03/2001	Subodh K. Raniwala	40002-10217	3542

7590

03/25/2003

Patent Docket Clerk  
RYNDAK & SURI  
Suite 2630  
30 N. LaSalle Street  
Chicago, IL 60602

EXAMINER

CHORBAJI, MONZER R

ART UNIT

PAPER NUMBER

1744

DATE MAILED: 03/25/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/753,437

Applicant(s)

SUBDOH K. RANIWALA

Examiner

MONZER R CHORBAJI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1744

This final office action is in response to the amendment received on 12/17/2002

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 16, lines 16-17, applicant has added the following limitation "maintaining the bottle in an inverted position throughout the entire sterilization process". Such a limitation was not disclosed in the original application.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1744

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-2, 5-8, 10-17, 20-22 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828).

With respect to claims 1 and 16, Richter discloses a bottle sterilizing system (figure and col.4, lines 46-61) and a method (columns 9-10) for sterilizing bottles (col.4, lines 46-61) using a solution including hydrogen peroxide (col.3, lines 12-13) source (104) by contacting the interior and the exterior surfaces of the bottles (col.10, lines 49-51). The bottles mentioned in Richter include the inherent features of having an interior and exterior surface, a body and an opening such that the opening has a width smaller than the width of the body portion. Also, Richter teaches of removing the sterilant (col.4, lines 39-42) from all the surfaces of the bottles using a rinsing device, after maintaining such a contact for a specified period of time (col.11, lines 20-21). Richter fails to disclose atomizing the sterilant, which results in the formation of a thin liquid film. However, Carlson discloses an exterior source of sterilizing agent (figure 1, 14) of atomizing the hydrogen peroxide such that a uniform coating of the sterilant (thin liquid film) on the interior side walls and bottom of the carton (col.3, lines 8-20). One having ordinary skill in the art would have been motivated to modify Richter's method and apparatus to include a sterilant atomizing means to achieve the desired degree of coating of the bottle surfaces (Carlson, col.4, lines 19-21) such that the bottle prevents

introduction of the sterilant from impinging directly on at least a portion of the interior surface of such bottle.

With respect to claims 2 and 17 since Carlson's apparatus uses an atomizer that impinges and dissipates the particles upon the container surface, then it is intrinsic that such a contact results in substantially wetting the surface.

With respect to claims 5-6 and 20-21 Carlson's apparatus uses a hydraulic atomizer nozzle (col.3, lines 8-11) such that the liquid droplets are in the form of a mist (col.3, line 10).

With respect to claims 7-8 and 22 Richter's method and apparatus result in contacting all the surfaces of a bottle (col.10, lines 49-51) such that the sterilant is introduced in a closed chamber (102).

With respect to claims 10-11 and 24 Richter's method and apparatus include the following: heating the sterilant to a temperature between 60 degree Fahrenheit and 180 degree Fahrenheit (col.2, lines 25-26), the sterilizing agent includes hydrogen peroxide and peracetic acid (col.3, line 45), and the sterilant is an aqueous solution (col.3, line 45), which includes about 27.5% hydrogen peroxide (col.3, lines 12-13) and about 5.8% peracetic acid (col.3, lines 16-17).

With respect to claims 12 and 27 even though Richter's method and apparatus does not disclose the inversion of the bottles, however, such a step is intrinsic in order to remove the sterilizing agent from inside the bottles. Inverting the bottles before or after introduction of the sterilant is well within the scope of the one having ordinary skill in the art of designing plants for sterilizing bottles.

With respect to claims 13, 15, 25, and 28, Richter's method and apparatus include the following: the sterilizing agent is removed from the bottle surface by rinsing the bottle with water (unlabeled nozzles in 103), and the system is operated in a cold-fill liquid product filling operation (col.2, lines 51-53).

With respect to claims 14 and 26, Carlson's method and apparatus include removing the sterilant from the container surface with compressed air (col.1, lines 66-68).

5. Claims 3-4, 9, 18-19, 23, and 29-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828) and further in view of Spisak et al (U.S.P.N. 4,566,251).

With respect to claim 29, the teachings of Richter and Carlson have been addressed above in regard to claims 1 and 16. Both Richter and Carlson fail to disclose inverting bottles such that the nozzle for introducing the sterilant is disposed under the bottles. Spisak discloses the concept of inverting (col.1, lines 61-63) open top containers, i.e., bottle (col.3, lines 5-6) on conveyor such that the open top containers are inverted in chain (figure 3, 72) to drain the sterilant (col.5, lines 20-26). While draining the sterilant, nozzle (figure 3, 114) is disposed under the open top containers. One having ordinary skill in the art would have been motivated to modify Richter's method and apparatus to include inverting the bottles in order to insure all the condensate has been drained (Spisak, col.1, lines 63-65).

With regard to claims 3-4, 9, 18-19, 23, 31-32, and 37, Spisak teaches that it is known in the art to introduce hydrogen peroxide in the form of fog (col.1, lines 20-21).

In addition, Spisak discloses of introducing the sterilant in a way to promote condensation on all surfaces of the carton (col.1, lines 60-64 and col.5, lines 11-28). Since condensation occurs in Spisak's chamber (60a) then such a chamber intrinsically is adapted for increased temperature and pressure.

With respect to claim 30 see claims 2 and 17 as previously addressed above.

With respect to claims 33-34 see claims 5-6 and 20-21 as previously addressed above.

With respect to claims 35-36 see claims 7-8 and 22 as previously addressed above.

With respect to claims 38-39 see claims 10-11 and 24 as previously addressed above.

With respect to claim 40 see claims 12 and 27 as previously addressed above.

### ***Response to Arguments***

6. On page 5 of the response, applicant argues, "Neither Richter, Carlson nor Spisak, alone or in combination teach or suggest introducing atomized sterilizing agent onto the interior surface of a bottle having an opening which prevents direct impingement of the particles onto portions of the interior bottle surface as recited in claims 1-40". Richter teaches spraying the interior and exterior surfaces of bottles using a sterilant. Carlson introduces an atomized sterilizing agent onto the surface of a carton. The Spisak reference teaches the concept of inverting containers with opening (i.e., bottles) and has nothing to do with atomizing a sterilizing agent. The limitations of a bottle are inherent features of the bottles sterilized in Richter. One having ordinary skill

Art Unit: 1744

in the art would have been motivated to modify Richter's method and apparatus to include a sterilant atomizing means to achieve the desired degree of coating of the bottle surfaces (Carlson, col.4, lines 19-21) such that the reduced size bottle opening obstructs the path between portions of the bottle interior and the sterilizing agent source.

On page 5 of the response, applicant argues, "Richter has no disclosure whatsoever regarding atomized particles". The Richter reference was not used for atomizing particles instead for sterilizing the interior and exterior surfaces of bottles by spraying hydrogen peroxide. Instead Carlson was applied to show that atomizing a sterilant in order to create a thin liquid film is known.

On page 6 of the response, applicant argues, "Spisak has no teaching or suggestion that particles are prevented from directly impinging upon the bottle interior surface". The Spisak reference was combined to show that the concept of inverting open top containers is known and not for preventing the particles from directly impinging upon the bottle interior surface.

On page 6 of the response, applicant argues, "Moreover, neither Richter, Carlson nor Spisak, alone or in combination, teach or remotely suggest applying sterilizing agent to an inverted bottle as recited in claims 16-40". With regard to claim 16, the limitation "maintaining the bottle in an inverted position throughout the entire sterilization process" was not disclosed in the specification and is considered new matter. Spisak was combined to show that the concept of inverting open top containers is known. However,



Richter and Carlson were combined for other limitations and not for the inversion concept.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **MONZER R CHORBAJI** whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **ROBERT J WARDEN** can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

Application/Control Number: 09/753,437

Page 9

Art Unit: 1744

305-3599 for regular communications and (703) 305-7719 for After Final communications.

11. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Monzer R. Chorbaji *MAC*  
Patent Examiner  
AU 1744  
March 20, 2003